PCN61

HOSPITAL BURDEN RELATED TO UPPER AERODIGESTIVE TRACT CANCERS IN FRANCE

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OBJECTIVES: Upper Aerodigestive Tract (UAT) cancers concern more than 20,000 new cases and about 10,000 deaths per year in France and represent the highest incidence in Europe. In the scope of optimising local health care offer, the purpose of this study was to assess and compare the annual hospital burden of UAT cancers in every French region. **METHODS:** We used the 2007 PMSI French hospital database gathering information on public and private hospitals admissions. Through an algorithm based on ICD10 diagnosis, we extracted hospital stays, chemotherapy and radiotherapy sessions for UAT cancers (malignancies affecting the oral cavity, salivary glands, facial airways, oropharynx, hypopharynx and larynx). Radiotherapy sessions performed in the private sector are not registered in the PMSI, so they were assessed from the SAE database. Hospital charges were based on a representative national cost study (ENC) and demography data were extracted from National statistics (INSEE). **RESULTS:** In 2007, 274,082 records for UAT cancers were extracted from the PMSI corresponding to 35,085 patients, of which 81% were men. This gender disparity is homogeneous over UAT cancer types, except for salivary glands cancer affecting up to 60% of men. The prevalence of hospitalised patients suffering from UAT cancers was higher in Northern regions. By including radiotherapy sessions performed in private sector, the annual hospital charge was estimated at €330,977,982, of which 75.0% and 15.3% were dedicated to hospital stays and chemotherapy sessions respectively. Radiotherapy sessions represent 9.7% of total charge, ranging from 5.6% to 17.8% according to regions. **CONCLUSIONS:** In France, UAT cancers represent a heavy charge for hospitals. Furthermore, regional disparities are significant. **In a** context of the regionalization of health plans, these results could be useful for **decision** makers in order to develop adapted prevention programs and relevant resources allocation at local level.

PCN62

COST ANALYSIS OF HORMONE RECEPTOR POSITIVE, ADVANCED BREAST CANCER TREATMENT WITH ENDOCRINE THERAPY VERSUS CHEMOTHERAPY IN THE BRAZILIAN PUBLIC HEALTH CARE SYSTEM (BPHS)

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OBJECTIVES: To estimate the resource utilization and microcosting related to endocrine therapy (ET) versus chemotherapy (CT) in the treatment of hormonal receptor positive (HR+), advanced breast cancer (ABC) patients, after at least one previous ET, under the BPHS perspective. **METHODS:** This retrospective longitudinal study analyzed ABC patients receiving fulvestrant or CT between 2006 and 2008 in a public oncology outpatient service. The study sample was a convenience sample and included all eligible patients identified. Only patients without visceral crisis and with at least one previous hormonal therapy were considered eligible. Medical charts were reviewed by two investigators and information about diagnosis, course of treatment, and resource utilization was obtained. Unit costs were obtained from public Brazilian databases. **RESULTS:** Patients were all female and the mean age was 64.6 ± 12.6 years. Patients were well matched between groups considering baseline characteristics. Twenty-five patients were enrolled in the study, 13 patients received CT and 12 patients received fulvestrant. The most common CT regimen was paclitaxel (n = 5, 38%). The mean number of cycles was 7,6 and 5,8 for fulvestrant and CT, respectively. The mean treatment cost per patient was BRL16,679 (US$11,914; 2005 purchasing power parity index 1US$ = 1.4BRL) for fulvestrant and BRL32,946 (US$23,533) for CT. The mean cost per cycle was BRL2199 (US$1571) and BRL5710 (US$4079) for fulvestrant and CT, respectively, resulting in BRL3511 (US$2508) incremental cost per cycle. Medications were the largest contributor to overall cost, corresponding to 97% and 92% of total costs per cycle in the fulvestrant and chemotherapy groups, respectively. **CONCLUSIONS:** Our study results indicate that subsequent ET with fulvestrant can be economically appropriate among HR+ ABC patients. Further researches could validate these findings in other contexts, but we consider that our estimations reflect the real world clinical practice in Brazil.

PCN63

REVIEW OF THE ECONOMIC IMPACT OF CHEMOTHERAPY INDUCED PERIPHERAL NEUROPATHY

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OBJECTIVES: This study reviewed published direct and indirect costs estimates associated with the management of chemotherapy induced peripheral neuropathy (CIPN), a frequent side effect of neurotoxic chemotherapies affecting activities of daily living. **METHODS:** A systematic search of **six article databases including EMBASE,** Medline, EMBR, HAPI, IPA, CINAHL and four conference proceedings between 2003 and 2009 **was undertaken using clinical, chemotherapy, and economic related terms.** **RESULTS:** Of the 8262 articles and 355 conference abstracts that were identified, a total of 7 articles and 1 abstract discussed economic impact. Only one study reported direct and indirect costs from a societal perspective and the others measured only direct costs from the payer's perspective. Neuropathy related resource use was not consistently measured, and no studies reported clinical testing or rehabilitation costs. Although CIPN symptoms linger for months after treatment ends, no study measured resource use beyond the duration of chemotherapy treatment. Total societal cost of CIPN was estimated to be $4908/episode. Direct treatment cost ranged from $150–$688/episode, with medication and physician consultation costs accounting for the majority of these costs. Physician consultation costs ranged from $150–$300. The cost of a grade 4 neuropathy hospitalization was approximately $8095 for a four day stay. Indirect costs of CIPN were estimated to be $4220/episode, accounting for 86% of the total neuropathy-related costs. These costs included lost salary, paid caregiver, travel expenses. The caregiver's work loss accounted for 82% of the total indirect costs. **CONCLUSIONS:** Total societal costs of CIPN are significant. Indirect costs, including lost work productivity, account for the majority of total CIPN costs. Resource use and costs of treatment were likely underreported given that studies did not account for post-chemotherapy resource use. More accurate estimates of costs and resource use are necessary to understand the true economic impact of CIPN.

PCN64

CHARACTERIZING RESOURCE USE AND TREATMENT COSTS FOR CHRONIC MYELOGENOUS LEUKEMIA (CML) IN THE UK (UK)

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OBJECTIVES: Tyrosine kinase inhibitors (TKIs), such as imatinib and dasatinib, have revolutionized treatment for chronic myelogenous leukemia (CML). Randomized trials suggest that TKIs differentiate according to both efficacy and rates of adverse events, which may translate in to differences in cost-effectiveness ratios. While some data exist on the resource use and costs of CML treatment in the US, no similar UK data exist. However, differences in the management and costs of treatment of CML exist between the US and the UK. The objective of this study was therefore to calculate UK-specific resource use and costs estimates associated with the treatment of CML. **METHODS:** Using a questionnaire based on current treatment guidelines and clinical expert consultation, we elicited the opinion of six oncologists on the frequency of resource use (outpatient visits, laboratory tests, interventions and hospitalization). Estimates were stratified by disease phase (chronic, accelerated, or blast), treatment response status (responding or not) and treatment duration. Mean costs (minimum, maximum) in 2008 GBP were obtained from publicly available sources. **RESULTS:** In the first three months of each phase, a patient responding to treatment was estimated to cost: £730 (£153, £1229) in chronic phase, £867 (£176, £1473) in accelerated phase, and £2659 (£590, £6014) in blast phase. A patient not responding to treatment was estimated to cost £901 (£429, £1327) in chronic phase, £1012 (£437, £1416) in accelerated phase, and £4486 (£964, £7507) in blast phase. Costs were higher for patients not responding to treatment, increased as patients progressed through disease phases, and decreased with increasing time in the phase. **CONCLUSIONS:** Higher costs were associated with patients not responding to treatment in each CML phase. The estimates collected in the current study can supplement existing data on the economic burden of CML, and will serve as reproducibly-measured inputs for future models.

PCN65

INPATIENT COST AND REIMBURSEMENT FOR PATIENTS WITH PROGRESSIVE MALIGNANT THORACIC NEOPLASM IN GERMANY

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OBJECTIVES: We examined drivers of hospital costs and DRG reimbursement adequacy for inpatient cases of progressive malignant thoracic neoplasm in a large German university hospital. **METHODS:** This was a prospective observational study, which enrolled the first 84 patients with progressive malignant thoracic neoplasm admitted to the oncology department of Munich Ludwig-Maximilian University Hospital in 2008. The economic evaluation was performed from the hospital perspective and costs are reported at current prices. Demographic data, medical history and disease management information were collected in case report forms. Detailed hospital costs and health insurance reimbursements were obtained from hospital's analytical accounting system. We explored factors associated with inpatient cost in a Generalized Linear Model with log link and Gamma distribution. **RESULTS:** The analysis sample included 80 patients (67.5% males) with a mean age of 63.4 years (SD 10.6), of which 52 (65.0%) were publicly insured only. Main reasons for hospitalization were cancer therapy and/or management of therapy complications (47.5%). Thirty-nine patients (48.8%) had a histology of non-small cell carcinoma and 33 (41.3%) of small cell carcinoma. Sixty-seven patients (83.8%) had metastatic disease and the median Karnofsky performance status index was 80% (IQR 20%). The mean length of stay was 9.7 days (SD 10.1) and the mean inpatient cost €4892, two times higher than the median (€2499). Drugs, medical personnel and hospital infrastructures accounted for 32.9%, 25.3% and 20.7% of hospitalization costs, respectively. The multivariate analysis revealed significant positive associations ($p < 0.01$) between lower performance status, non-small cell histology, number of reasons for hospitalization, as a proxy of case complexity, and inpatient cost. On average, cost exceeded by €1166 health insurance reimbursement. **CONCLUSIONS:** We found strong impact of case severity, complexity and tumor histology on inpatient cost. DRG reimbursement is overall insufficient to cover hospital costs due to the cost-intensive cases.